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Research Article

**ANALYSIS OF EFFECTS OF CIGARETTE SMOKING AMONG  
LOCAL POPULATION OF PAKISTAN: A POPULATION  
BASED STUDY IN MAYO HOSPITAL LAHORE**<sup>1</sup>Dr. Memoona Akhtar, <sup>2</sup>Dr. Humayun Manzoor, <sup>3</sup>Dr. Wajeeha Jamshed<sup>1</sup>Women Medical Officer at RHC Lessar Kalan, Narowal<sup>2</sup>Medical Officer at RHC Lasser Kalan<sup>3</sup>Women Medical Officer at RHC 148EB, Burewala, Vehari**Abstract:**

**Introduction:** In the present era, cigarette smoking is a major but preventable cause of death. Despite being aware of its harmful and hazardous effects, many young adults begin experimenting with cigarettes at a very early age and then adopt it as a regular habit. **Objectives of the study:** The basic aim of the study is to analyze the effects of cigarette smoking among local population of Pakistan. It is basically aimed to provide the awareness to the local population of Pakistan regarding hazardous of smoking. **Material and methods:** This study is conducted in Mayo hospital Lahore during 2017 with the permission of ethical department of hospital. This study was done in medical and pulmonology ward of Mayo hospital and all the patients who were admitted in these wards was selected for this study. **Results:** In all, 100 participants were found to be currently smoking, giving an overall prevalence of current smoking to be 24.6% (95% CI 21.90 - 27.49) in the study population. History of ever smoking was reported by 31.5% participants (95% CI 28.57 - 34.59). More male participants were found to be currently smoking 40.1% in comparison to females 8.8%, and the association between tobacco smoking and gender was statistically significant ( $P < 0.001$ ). **Conclusion:** It is concluded that most of the people started smoking in young age due to environmental and social factors. It is also observed that smoking has also shown a rising trend with age emphasizing that initiation into the habit may occur at any age and not just among young people.

**Key words:** Smoking, Habits, Effect, Cigarette**\* Corresponding author:**

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**INTRODUCTION:**

In the present era, cigarette smoking is a major but preventable cause of death. Despite being aware of its harmful and hazardous effects, many young adults begin experimenting with cigarettes at a very early age and then adopt it as a regular habit [1]. Cigarette smoking is an important worldwide health problem, and it has been reported that 1.7 million Thai youths currently smoke. This problem is compounded by the fact that the rate of cigarette smoking in young people continues to steadily increase. Cigarette smoking carries major health risks with the most cause-specific mortalities being those of respiratory and cardiovascular diseases. Therefore, smoking habits may affect the respiratory function of youths [2].

Earlier reports have indicated that in young adults, relatively small amounts of cigarette smoke can cause deficit in lung functions [3]. Smoking 15 cigarettes per day in males has been associated with 4% decline in forced mid expiratory flow as compared to those who never smoked. Since inhaling cigarette smoke has been shown to produce acute changes in the lung including alterations in resistance to airflow, cough, and irritation of the airway, the early stage of smoking might affect the respiratory function of youths [4]. However, there have been few studies which have investigated the effect of smoking on pulmonary function in adolescents. In previous studies, cigarette smoking was found to have an effect on the lung function of the adolescent boys and girls. Those studies found that FEV<sub>1</sub>/FVC decreased in adolescent smokers of both sexes. Only the pulmonary function test with a spirometer was measured in those studies [5]. Therefore, to clarify the effect of smoking on the respiratory function of smoking and non-smoking youths, we measured and compared their chest expansion, the lung function test using a spirometer, and respiratory muscle strength to learn more about the dangers of cigarette smoking [6].

Tobacco smoking in Pakistan is legal, but under certain circumstances is banned. The habit is mostly found in the youth of Pakistan and in farmers, and is thought to be responsible for various health problems and deaths in the country. Smoking produces many health problems in smokers. According to some surveys, 40% of males and 8% of females are regular smokers<sup>5</sup>. Pakistan has the highest consumption of tobacco in South Asia. The Pakistan Health Education Survey 1992-93 estimated that there were about 22,000,000 smokers (every third adult) in the country at the time of the survey. In 1983, 50000

acres of fertile land were used for tobacco cultivation in Pakistan. Most of the tobacco grown in Pakistan is consumed within the country, and most of it is smoked in the form of cigarettes. The tobacco industry in Pakistan is expanding at a rate of 5% per year, a rate higher than Pakistan's annual population growth rate of 3%. The number of smokers in the country is rising. , Moreover, Pakistani cigarettes contain amongst the highest levels of tar and nicotine in the world.

**Background of the study**

In Pakistan, as in many other low and middle-income countries, there is little published information about the level of health knowledge about smoking. Related to this title, few studies have been conducted in University students In Pakistan. However, to our knowledge, no such studies have been conducted on General patients visiting Government Hospitals.

**Objectives of the study**

The basic aim of the study is to analyze the effects of cigarette smoking among local population of Pakistan. It is basically aimed to provide the awareness to the local population of Pakistan regarding hazardous of smoking.

**MATERIAL AND METHODS:**

This study is conducted in Mayo hospital Lahore during 2017 with the permission of ethical department of hospital. This study was done in medical and pulmonology ward of Mayo hospital and all the patients who were admitted in these wards was selected for this study.

**Collection of data**

The data was collected from 100 patients from which 55 were smokers and 45 were non smokers. This is basically a cross sectional study and questionnaire was designed for the collection of data. Socio-demographic values and medical history of the selected patients were recorded clearly. Prior to participation in this study, each subject signed an informed consent form to comply with the ethical guidelines. The information on smoking habits was obtained through interviews. Subjects who currently smoked cigarettes were classified as smokers and those without a history of smoking cigarettes were classified as non-smokers. The respiratory function test consisted of the measurement of chest expansion, the lung function test using spirometry, and respiratory muscle strength. For chest expansion measurements of circumference and diameter, subjects were instructed to fully inhale and exhale in the standing position.

**Ethical consideration**

Permission from the Head of department will be taken. Also, consent from the patient will be taken verbally.

**Table 01:** awareness of hazardous of cigarette smoking habits

	Awareness of smoking and disease (N=100)		
	Yes	No	Not sure
Smoking effect on health	96%	3%	1%
Smokers are dependent on smoking	92%	5%	3%
Do You Think Smoking Is Enjoyable	90%	7%	3%
Is There A Safe Way Or Brand To Smoke	85%	8%	7%
Is Cigarette Smoking Really Addictive?	37%	37%	27%
Do You Know About Nicotine?	21%	41%	38%
Does Smoking Cause Cancer?	81%	10%	9%
Does Smoking Affects The Heart?	47%	23%	30%
Do You Think That Smoking Affects The Economy?	20%	60%	20%
Does Smoking Affect The Bones?	21%	65%	14%

**Statistical analysis**

The data of respiratory function were compared between the smoker and non-smoker groups using the independent t-test for normally distributed data or the Mann-Whitney U test for other distributions. Differences were considered statistically significant at  $p < 0.05$ .

**RESULTS:**

In all, 100 participants were found to be currently smoking, giving an overall prevalence of current smoking to be 24.6% (95% CI 21.90 - 27.49) in the study population. History of ever smoking was reported by 31.5% participants (95% CI 28.57 - 34.59). More male participants were found to be currently smoking 40.1% in comparison to females 8.8%, and the association between tobacco smoking and gender was statistically significant ( $P < 0.001$ ).

**Table 02:** Distribution of participants according to smoking level

Smoking status	Total (%)	P-value
Current smokers	24.6	<0.001
Ever smokers	32	<0.001
Non smokers	68.5	<0.001

Table 02 shows the results of analysis of questionnaire from the patients which shows very clearly about the awareness of people among smoking habits and its effect on health.

**DISCUSSION:**

Some studies have found that the use of graphic health warning labels may be an effective stimulus towards smoking cessation [7]. Although graphic health warning labels have been in circulation in Pakistan since 2004, by demonstrating statistically significant differences in those experiencing no disgust ( $P=0.036$ ) and those experiencing the strongest level of fear ( $P=0.034$ ), this study shows that graphic health warning levels appear to retain their effectiveness in encouraging the public to avoid smoking. Furthermore, there was no significant difference between the two samples in the amount of motivation the labels provided against picking up or quitting smoking, which adds weight to this argument [8].

Tobacco use is a leading public health problem all

over the world with 82% of the world's 1.1 billion smokers residing in low and middle income countries and where, in contrast to the declining consumption in high-income countries, tobacco consumption is on the rise. Indian studies have recognized tobacco use as a major health hazard [9]. Tobacco consumption has overall been a major contributor to deaths due to circulatory diseases, pulmonary and malignant diseases in India. Smoking also increases the incidence of clinical tuberculosis, is a cause of half the male tuberculosis deaths in India, and of a quarter of all male deaths in middle age. Information on prevalence of tobacco use in India is available from surveys carried out in general community [10]. According to the national cross-sectional household survey, India has more than 200 million tobacco consumers; however, prevalence of smoking and tobacco chewing varies widely between different

states, and has a strong association with individual's socio-cultural characteristics. A recent nationwide study on smoking and mortality in India estimated that smoking in persons between the ages of 30 and 69 years is responsible for about 1 in 20 deaths of women and 1 in 5 deaths of men, totaling to 1 million deaths per year [11]. Study of smoking pattern among middle age and elderly has received poor attention despite its proven implications on health.

Thus, the early stage of smoking among youths does cause reduction in the lung function. Inhaled cigarette smoke has been shown to elicit acute changes in respiratory function including alterations in resistance to airflow, coughing, and irritation of the airways [12]. Our research findings may encourage the implementation of smoking cessation counseling for adolescents. The spirometer is commonly used for measuring respiratory function for diagnostic and clinical purposes. However, fluctuations in our data may have been caused by miscommunication with the subjects [13].

#### CONCLUSION:

It is concluded that most of the people started smoking in young age due to environmental and social factors. It is also observed that smoking has also shown a rising trend with age emphasizing that initiation into the habit may occur at any age and not just among young people. This implies that tobacco control policies will have to focus on almost all age groups up to the 50 plus age. In this regard, health education can play a pivotal role and can have a lasting impact on reduction of tobacco smoking by improving awareness levels of the population. This can be done through mass media and through school and community-based education programs

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